

# INTRODUCTION TO GROUNDWATER INVESTIGATIONS (165.7)

## 3 DAYS

This introductory course is designed to provide participants with information concerning hydrogeological processes and the necessary elements of a sound groundwater site investigation. It is intended for personnel who are involved in groundwater contamination investigations but have **little prior hydrogeological experience**. This course is **not** designed for geologists or hydrogeologists.

Topics that are discussed include hydrogeological definitions and concepts; rock cycle; soil formation; depositional environments; geochemistry; geophysics; drilling, construction, and placement of monitoring wells; groundwater sampling considerations; and groundwater modeling.

Instructional methods include lectures, group discussions, case studies, and class problem-solving exercises.

After completing the course, participants will be able to:

- Identify the components of a groundwater system.
- List the primary hydrogeological parameters to be considered in a site investigation.
- Construct a groundwater flow net and calculate hydraulic gradient at a site.
- Discuss common geophysical survey methods.
- Identify geochemical profiles in contaminated groundwater.
- Identify common aquifer stress tests and the information obtained from each.
- Describe monitoring well drilling and construction techniques.

The following web sites may be of benefit to students who would like to read related subject matter prior to taking the course:

[www.issaquah.org/COMORG/gwac/hydro.htm](http://www.issaquah.org/COMORG/gwac/hydro.htm)  
[www.epa.gov/seahome/groundwater/src/ground.htm](http://www.epa.gov/seahome/groundwater/src/ground.htm)

*Note: Scientific calculators are required.*

Continuing Education Units: 2.4

### Course Dates and Locations

#### 2004

November 8–10	Edison, New Jersey	November 30 – December 2	Region 2
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#### 2005

January 4–6	Region 5	May 3–5	Region 8
January 19–21	Region 1	June 21–23	Region 7
February 15–17	Region 9	August 9–11	Region 10
March 1–3	Region 4	August 23–25	Region 3
April 19–21	Cincinnati, Ohio	September 20–22	Region 6